

U.S. Patent Application No. 10/795,968
Request for Reconsideration dated February 24, 2006
Reply to Office Action dated September 26, 2005

REMARKS/ARGUMENTS

Reconsideration and continued examination of the above-identified application are respectfully requested.

The undersigned and the applicants wish to thank the Examiner for the brief telephone conference on January 6, 2006, where the present Office Action was discussed, along with the differences between Chang and the claimed invention. The Examiner suggested that the applicants show that Chang, which is the cited reference, cannot have a capacitance set forth in claim 36 by way of comparison data submitted in a Declaration under 37 C.F.R. §1.132. As discussed in detail below, submitted with this response is such a declaration which shows that Nb powders similar to Chang would not have the capacitance capability set forth for the powders recited in the claimed invention.

At the bottom of page 2 of the Office Action, the Examiner rejects claims 36-43, 48, 49, 50, 51, 53, 54, 55, 56, 58, 59, 60, and 61 under 35 U.S.C. §102(b) as being anticipated by Chang (U.S. Patent No. 5,448,447). The Examiner has maintained this rejection. In particular, the Examiner asserts that Chang discloses a flaked niobium powder which can be nitrogen doped, and further discloses that the powder can be agglomerated. The Examiner further asserts that the limitations of claims 36-42, 48, and 49 are not given weight. The Examiner believes that the remaining properties set forth in the claims would be inherent in the powders of Chang. The Examiner then further rejects, at pages 3 and 4 of the Office Action, claims 52, 57, and 62-64. The Examiner relies on Example 8 of Chang to argue that Chang would show the various particle sizes recited in the claims. For the following reasons, these rejections are respectfully traversed.

As noted by the Examiner at the bottom of page 4 of the Office Action, Chang discloses

U.S. Patent Application No. 10/795,968
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BETs of between about 0.25 and 0.55 m²/g. Furthermore, as previously argued, Chang specifically discloses tantalum powders and all of the examples of Chang are related to tantalum powders. While Chang does mention that niobium metal is part of the disclosure of Chang, it is respectfully submitted that all discussions in Chang and the examples primarily relate to tantalum powder. In fact, Example 8, which is specifically referred to and relied upon by the Examiner, relates to tantalum powder. All of the previous comments set forth in the Amendment filed June 28, 2005 are incorporated in their entirety by reference herein.

In addition, to address the comments made by the Examiner, submitted with this response is a Declaration under 37 C.F.R. §1.132. In this Declaration, niobium samples having a BET of 0.58 to 0.71 m²/g were formed at a formation voltage of 35 volts, a formation temperature of 60° C, and sintered temperatures of 1,400° C or 1,300° C for a sinter time of 10 minutes. While these conditions are not identical to the test standards set forth in present claim 36, they are close enough to show to the Examiner that a niobium powder having a BET in the range alleged by the Examiner simply would not have the capacitance recited in claim 36 and the claims dependent thereon. In addition, to assist the Examiner, a graph has been included to extrapolate the capacitance to a sintered temperature of 1,100° C based on a linear relationship. This particular graph, attached to the Declaration, was done for a BET of 0.58 m²/g and the capacitance would be about 40,000 CV/g at 1,100° C. This is significantly below the 65,000 CV/g recited in the claims. Even if a fair degree of non-linearity existed in the CV/g-sintered temperature relationship, as set forth in the Declaration, the researcher believes that capacitance clearly would be below 65,000 CV/g. Furthermore, the formation voltage of 35 volts versus 20 volts would not significantly affect the capacitance to the extent that a powder of 0.58 m²/g would achieve a capacitance of at least 65,000

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CV/g.

Accordingly, for the reasons previously presented in the Amendment filed June 28, 2005, and the attached Declaration, the §102 rejection and all of the §103 rejections in view of Chang, should be withdrawn.

CONCLUSION

In view of the foregoing remarks, the applicants respectfully request reconsideration of this application and the timely allowance of the pending claims.

If there are any other fees due in connection with the filing of this response, please charge the fees to Deposit Account No. 50-0925. If a fee is required for an extension of time under 37 C.F.R. § 1.136 not accounted for above, such extension is requested and should also be charged to said Deposit Account.

Respectfully submitted,



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